

involvement of the ER This mechanism of action or a different ER performance. Clarify the ER estrogen stimulation of prostate cancer will be as before this laboratory study in renal cancer cells by inhibiting AKT pathway to inhibit tumor role.

Results: We found prostate cancer growth was inhibited by certain level of Estrogen. The survival of prostate cancer was reduced up to 30%. Besides, migration and invasion of prostate cancer cell were also inhibited by Estrogen. Estrogen also stimulate VEGFR signal of prostate cancer cell.

Conclusion: Estrogen has direct inhibitory effect on prostate cancer cell growth. Further studies to identify the mechanism of Estrogen, androgen receptor, RAS, EGFR pathway are needed.

NDP012:

EVALUATION OF FLUORODEOXYGLUCOSE POSITRON EMISSION TOMOGRAPHY/COMPUTED TOMOGRAPHY FOR DIAGNOSIS AND STAGING OF UPPER URINARY TRACT UROTHELIAL CARCINOMA

Kuan-Hsun Huang, Chien-Hui Ou, Wen-Horng Yang. *Department of Urology, Medical College and Hospital, National Cheng-Kung University, Tainan, Taiwan*

Purpose: To evaluate the ability of Fluorodeoxyglucose positron emission tomography /computed tomography (18F-FDG PET-CT) in primary diagnosis and detection of upper urinary tract urothelial carcinoma by comparing with final pathologic result.

Materials and Methods: We retrospectively evaluated clinicopathological records of patients in our institute. All patients suspicious to have upper urinary tracts malignancies were received 18F-FDG PET-CT, which was followed by pathological-proved procedures such as ureteroscopic biopsy, CT-guide biopsy, Nephroureterectomy or Hand-assisted Retroperitoneoscopic Nephroureterectomy (HARN). 21 patients were included in this study. There were 12 women and 9 men with a median age of 76 years old (range 34–89y/o).

Results: Of 21 patients in study group, 12 patients received HARN, 3 had URS biopsy, 1 CT-guide biopsy and 5 open Nephroureterectomy. There were 5, 3, 5, 7 patients with pTa, pT1, pT2, pT3 respectively. 3 patients were diagnosed with lymph nodes metastasis by PET-CT, and 2 patients with tissue proved lymph node metastasis. 20 showed definite FDG uptake in initial or delay phase. Positive predictive rate was 95 %.

Conclusion: These preliminary results of this study with small number of patients showed that FDG-PET/CT is another effective diagnosis in detection of UTUC.

NDP013:

THE PROGNOSTIC IMPACT OF MULTIFOCALITY FOR UPPER TRACT UROTHELIAL CARCINOMA PATIENTS AFTER RADICAL NEPHROURETERECTOMY

Ta-Yao Tai, Chien-Hui Ou. *Department of Urology, National Cheng Kung University Hospital, Tainan, Taiwan*

Purpose: To evaluate the association between tumor multifocality of upper urinary tract urothelial carcinoma (UTUC) patients underwent radical nephroureterectomy and validate the impact on oncologic outcomes in those patients.

Materials and Methods: Patients who underwent nephroureterectomy between November 2003 and November 2013 were identified from National Cheng Kung University Hospital (NCKUH). Outcomes were obtained via retrospective analysis of notes and electronic records. Overall survival (OS), bladder recurrence-free survival (BRFS) were estimated using Kaplan–Meier methods and grade-stratified differences were analyzed using the log-rank test. Tumor multifocality of UTUC was defined as the synchronous presence of multiple tumors in the renal pelvis or ureter.

Results: Between November 2003 and November 2013, 269 patients underwent nephroureterectomy of UTUC with a median age at diagnosis of 68 years. Median (range; mean) follow-up was 29 (2–120; 35.3) months. In total, 34.5% (n = 69) of the patients had multifocal disease. The estimated OS in multifocal tumor group and single tumor group were 58.8% and 77.6%, respectively, at 5 years, and 44.1% and 59.7%, respectively, at 10 years ($p = 0.0225$). The estimated mean BRFS in multifocal tumor patients

and single tumor patients was 50.7% and 79.5%, respectively at 2 years and 47.8% and 74.5%, respectively, at 5 years ($p < 0.0001$).

Conclusion: In this present single center cohort study, tumor multifocality is an independent prognostic indicator of overall survival and bladder recurrence-free survival in patients with UTUC treated with nephroureterectomy.

NDP014:

CLINICAL FEATURES OF PATIENTS WITH NON-MALIGNANT UPPER TRACT LESIONS MIMICKING UROTHELIAL CANCER

Ze-Hong Lu, Chien-Hui Ou. *Department of Urology, National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Tainan, Taiwan*

Purpose: The aim of this retrospective study was to evaluate the incidence and clinical features of patients undergone nephroureterectomy with non-malignant upper tract lesions presumed to be urothelial carcinoma. The clinicopathologic characteristics of these lesions were also determined.

Material and methods: Between Oct 2004 and Oct 2015, 350 patients underwent retroperitoneoscopic nephroureterectomy for possible upper urinary tract urothelial carcinoma without routinely ureteroscopic biopsy of lesions at our institute. Twenty-three (6.6%) had non-malignant benign lesions at the final pathologic examination. The preoperative features of these patients were investigated, including imaging findings, urine cytologic results, and renal function status and previous history.

Results: The 23 patients comprised 9 men and 14 women. Initial symptoms included gross hematuria, hydronephrosis or repeated pyelonephritis. Urine cytology were also collected for evaluation. We also reviewed available abdomen computed tomography and retrograde pyelogram. Three patients underwent preoperative ureteroscopy. 11 patients (including 2 patient was post kidney transplantation status) had non-functional kidney. We divided patient into two groups by renal function status. The most common pathologic feature of ESRD group is atrophic kidney. In the other hand, the most common diagnosis of the other group of non-ERSD is pyelonephritis.

Conclusion: Non-malignant pathologic lesions were detected in twenty-three (6.6%) patients who had undergone retroperitoneoscopic nephroureterectomy without preoperative ureteroscopic biopsies of uppertract lesions.

NDP015:

CLINICAL AND THERAPEUTIC IMPLICATIONS OF NEUROENDOCRINE PROSTATE CANCER: A LONG WINDING ROAD TO CURE

Chia-Lung Tsai, Kevin Lu, Hua-Pin Wang, Victor Chia-Hsiang Lin, Tsan-Jung Yu. *Division of Urology, Department of Surgery, E-Da Hospital, School of Medicine, I-Shou University, Kaohsiung city, Taiwan*

Purpose: Primary neuroendocrine cancer of prostate is an extremely rare variant of prostate cancer, comprising 0.5% to 2% of prostate malignancies. This entity encompasses various clinical contexts, ranging from the de novo small cell carcinoma (SCC) to a treatment-emergent transformed phenotype that arising from typical adenocarcinoma (Ad) of the prostate. The rarity of these neoplasms poses a diagnostic and therapeutic challenge. Little is known about neuroendocrine prostate cancer and the current knowledge of this disease is based on case reports or small series. Our purpose was to characterize the cases treated at a tertiary academic center and to evaluate patient outcomes with the available treatment modalities.

Materials and Methods: This was a single-institute retrospective observational cohort study of patients with neuroendocrine prostate cancer followed at E-Da Hospital, Kaohsiung city, Taiwan between January 1, 2008 and October 1, 2013. Patient and tumor data were analyzed using descriptive statistical methods.

Results: Among 826 prostate cancers, six patients were identified with primary neuroendocrine prostate cancer, comprising 3 from de novo mixed variety (SCC and Ad) and 3 from transformed phenotype (pure SCC). The median age at diagnosis was 73.5 years. The most common presenting symptoms were obstructive symptoms (weak stream, incomplete empty and urine retention). The morphological appearance of the tumor cells and their immunohistochemical reactivity for neuroendocrine markers, and